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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/731,490

Applicant(s)

MILLER ET AL.

Examiner

Haresh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 32-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 32-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-14, 32-48, are presented for examination. Claims 15-31 have been cancelled.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The present title is not sufficient for proper classification of the claimed subject matter.

The title should contain key concept terms of the claimed invention, i.e., usage of the “multimedia processing project” and “matrix switch”.

Response to Arguments

3. Applicant's arguments filed 7/1/04 have been fully considered but they are not persuasive. Therefore, rejection of claims 1-14, 32-48 is maintained.

Applicant argues (1) Parry et al. 6,535,920 (Hereinafter Parry) does not disclose “dynamically determined plurality of outputs”. The examiner disagrees in response to applicant's arguments. Parry teaches use of a parser, which dynamically determines plurality of outputs (e.g., parser filter selecting outputs, col., 21, lines 12 – 25). The claim is open-ended (comprising) and also, page 62, lines 3-7, clearly states, “Although the invention has been described in language specific to structural features and/or methodological steps, it is to be understood that the invention defined in the appended claims is not necessarily limited to the specific features or steps described. Rather, the specific features and steps are disclosed as preferred forms of implementing the claimed invention”. Since, applicant's claims contain

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broadly claimed subject matter, it clearly reads upon the examiner's interpretation of these actions. Therefore, Parry meets the claimed limitations.

Applicant argues (2) Parry et al. 6,535,920 (Hereinafter Parry) does not disclose newly added limitation “wherein said object is configured to reuse the media source by providing disparate source clips from said single instance”. The examiner disagrees in response to applicant's arguments. Parry teaches “wherein said object is configured to reuse the media source by providing disparate source clips from said single instance”, e.g., various different streams containing media data provided by the media source, col., 2, lines 1- 18. The claim is open-ended (comprising) and also, page 62, lines 3-7, clearly states, “Although the invention has been described in language specific to structural features and/or methodological steps, it is to be understood that the invention defined in the appended claims is not necessarily limited to the specific features or steps described. Rather, the specific features and steps are disclosed as preferred forms of implementing the claimed invention”. Since, applicant's claims contain broadly claimed subject matter, it clearly reads upon the examiner's interpretation of these actions. Therefore, Parry meets the claimed limitations.

Applicant argues (3) that limitation “alleviating each source processing chain from opening an independent instance of the source”, is not well known in the art. The examiner disagrees in response to applicant's arguments. For example, Griffiths, 5,913,038, teaches alleviating each source processing chain from opening an independent instance of the source (e.g., col., 1, line 54 – col., 2, line 14). Griffiths discloses, filters to either handle disparate source clips, of audio only or video only or both audio and video combined data. The source processing chain can, without opening an independent instance of the source for the filters, process the only

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video/audio data. The source processing chain can, also, if necessary, open an independent instance of the source for the filters to, process the combined video/audio data. The claim is open-ended (comprising) and also, page 62, lines 3-7, clearly states, "Although the invention has been described in language specific to structural features and/or methodological steps, it is to be understood that the invention defined in the appended claims is not necessarily limited to the specific features or steps described. Rather, the specific features and steps are disclosed as preferred forms of implementing the claimed invention". Since, applicant's claims contain broadly claimed subject matter, it clearly reads upon the examiner's interpretation of these actions. More references, for handling the media data by alleviating each source processing chain from opening an independent instance of the source is available at <http://msdn.microsoft.com>. Therefore the rejection is maintained as disclosed above.

Applicant argues (4) that cited references Parry and Hunt are improperly combined and they do not disclose a scalable, dynamically reconfigurable matrix switch. The examiner disagrees in response to applicant's arguments. The examiner disagrees in response to applicant's arguments. Both the cited references Parry and Hunt teach handling of media information what the applicant is trying to accomplish, as per the claimed invention. The teaching of a scalable, dynamically reconfigurable matrix switch is equivalent to the use of dynamic selection of inputs and outputs of the segments to improve playback of interactive multimedia contents, col., 12, lines 6 – 58. Also, The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of a primary reference. It is also not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill

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in the art. In re Keller, 642 F.2d 414, 425, 208 USPQ 871, 881 (CCPA 1981); In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). Therefore, combined teachings of Parry and Hunt meet the claimed limitations.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The specification is objected to because it does not contain subject matter containing any software or hardware to implement “wherein said object is configured to reuse the media source by providing disparate source clips from said single instance”. Hence, claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The addition of the limitation “wherein said object is configured to reuse the media source by providing disparate source clips from said single instance” of claim 1, has been rejected by the examiner. Line 19, page 57, clearly mentions about using the source filter reuse and not the media source itself. Since, the media source, once provides the data to the filter graph, the data is reused in the filter graph using filters, and the media source is not reused. See, line 20, page 57 – line 8, page 62 of the detailed source filter reuse specification description.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-14, are rejected under 35 U.S.C. 102(e) as being anticipated by Parry et al. 6,535,920 (Hereinafter Parry).

7. As per claim 1, 13 and 14, Parry teaches a computer system, a storage medium implementing instructions, and a software object for use in a media processing filter graph (e.g., the architecture of a filter graph to efficiently process the multimedia, col., 1, line 66 – col., 2, line 18), comprising:

an input (e.g., source filter, col., 21, lines 12 – 25), coupled to a media source (e.g., source filter coupled to a media source, col., 21, lines 12 – 25), to receive content from the media source (e.g., media contents processing by the source filter, col., 21, lines 12 – 25), and

a dynamically determined plurality of outputs (e.g., parser filter selecting outputs, col., 21, lines 12 – 25), each responsive to the input and coupled to a source processing chain (e.g., parser output based on the input of the media contents processed by the chain of filters, col., 21, lines 12 – 25), to provide each of the source processing chains with media content requested from a single instance of the media source in accordance with a user defined media processing project (e.g., the architecture of a filter graph to efficiently process the multimedia data as per the user selection of the playback, col., 1, line 66 – col., 2, line 18), wherein said object is configured to reuse the media source by providing disparate source clips from said single instance (e.g.,

various different streams containing media data provided by the media source, col., 2, lines 1-18).

8. As per claim 3, Parry teaches the following:

the number of outputs are dynamically determined by the number of independent processing chains required to process media content from the media source (e.g., filter graph dynamically allocating number of source processing filters, col., 21, lines 12 – 25).

9. As per claim 4, Parry teaches the following:

the source processing chains are comprised of filter graph filters which uniquely transform the media content in some way (e.g., use of transform filters, col., 20, lines 50 – 55).

10. As per claim 5, Parry teaches the following:

the object receives requests for media content from one or more of the source processing chains and satisfies said requests (e.g., filter graph filters processing multimedia contents as per the requests, col., 21, lines 12 – 25).

11. As per claim 6, Parry teaches the following:

the object issues seek commands to the media source to satisfy the request(s) for media content (e.g. processing of the seek commands to access media source contents by the filters, col., 22, lines 13 – 26).

12. As per claim 7, Parry teaches the following:

the object serializes simultaneous requests for media from the source received from multiple source chains (e.g., processing of the requests in order from several users by the delay filter using encoder and decoder, col., 6, lines 53 – 65).

13. As per claim 8, Parry teaches the following:

the interface prioritizes the serialized requests based, at least in part, on a relative project time of each of the requested clips (e.g., read/write synchronization for the time duration of the user playback time, col., 8, lines 49 – 65).

14. As per claim 9, Parry teaches the following:

the object receives request for media content from a user through a higher-level application (e.g., playback application, col., 4, lines 9 - 26), and issues a seek command to satisfy the request (e.g., user requesting a seek command for selective playback, col., 4, lines 9 – 26).

15. As per claim 10, Parry teaches the following:

multiple objects are invoked and coupled to an associated multiple instances of source filters to satisfy multiple simultaneous requests for content from the sources (e.g., multiple instances of the multimedia source processed by multiple source processing filters, col., 21, lines 12 – 25).

16. As per claim 11, Parry teaches the following:

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the object is exposed by an operating system executing on a computing system implementing a media processing system (e.g., media processing filter graph exposed by Windows CE OS, col., 5, lines 11- 25).

17. As per claim 12, Parry teaches the following:

the object is an instance of a segment filter exposed to a media processing system executing on a computer system through a render engine (e.g., media processing filter graph exposed by Windows CE OS using render engine, col., 5, lines 11- 25).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parry in view of "Official Notice".

20. As per claim 2, Parry does not specifically mention about alleviating each source processing chain from opening an independent instance of the source. "Official Notice" is taken that both the concept and advantages of alleviating each source processing chain from opening an independent instance of the source is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include alleviating each source processing chain from opening an independent instance of the source with the teachings of Parry in order to facilitate minimum usage of the memory used by the processing filters. The well-known concept of creating the minimum number of instances of the software object will save memory usage and will improve the processing of the filter graph.

21. Claims 32-36, 38-48, are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry in view of Hunt et al. 6,442,658 (Hereinafter Hunt), as per paper number 8, date 04/08/2004.

22. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parry and Hunt in view of "Official Notice", as per paper number 8, date 04/08/2004.

Conclusion

In order to speedup the prosecution of the case, examiner is making an additional serious effort for amending the independent claims. Applicant is suggested to make the following amendments to the claims to define the scope of their invention and to distinguish over the arts argued by the applicant.

Amendment of claims 1, 32 and 44, as follows:

Claim 1: One or more computer-readable media embodying a software object for use in a media processing filter graph, the software object comprising:

an input, coupled to a media source, to receive content from the media source; and a dynamically determined plurality of outputs, each responsive to the input and coupled to a source processing chain, to provide each of the source processing chains with their requested respective disparate media type source clips from a single instance of the media source in accordance with a user defined media processing project, wherein said object is configured to parse the media source content into the respective disparate media type source clips provided by said single instance of the media source.

Claim 32: One or more computer-readable media embodying a software object coupled to a source processing chain in a media processing filter graph comprising: a software object input, coupled to a media source, to receive content from the media source; a dynamically determined plurality of software object outputs, each responsive to the software object input and coupled to a plurality of source processing chain, to provide each of the source processing chains with their requested respective disparate media type source clips from a single instance of the media source in accordance with a user defined media processing project, wherein said object is configured to parse the media source content into the respective disparate media type source clips provided by said single instance of the media source; the source processing chain comprising: a scalable, dynamically reconfigurable matrix switch having a plurality of inputs and a plurality of outputs; at least one matrix switch input being communicatively linked with a first processing chain portion;

Claim 44: A storage medium comprising executable instructions which, when executed, implement a system comprising: means for coupling to a media source to receive content from the media source to provide an input;

means for dynamically determining a plurality of outputs, each responsive to the input and coupled to a plurality of source processing chains, to provide each of the source processing chains with their requested respective disparate media type source clips from a single instance of the media source in accordance with a user defined media processing project, wherein said object is configured to parse the media source content into the respective disparate media type source clips provided by said single instance of the media source; the source processing chain comprising: a scalable, dynamically reconfigurable matrix switch having a plurality of inputs and a plurality of outputs; at least one matrix switch input being communicatively linked with a first processing chain portion; at least one other matrix switch input being communicatively linked with a second processing chain portion; the matrix switch being configured to dynamically couple one or more of the matrix switch inputs to one or more of the matrix switch outputs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (703) 605-5234. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee, can be reached at (703) 305-8498.


The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Haresh Patel

October 14, 2004


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100